

CLAIMS

What is claimed as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. A clam shell system for the formation of complex work pieces in a fast and reliable manner comprising in combination:

a work piece having an initial form with a long cylindrical projection and a base;

an interior cylindrical component being composed of a central inner beam, a central outer beam and coupled with a first spring, the spring being adapted to apply pressure to the outer beam to remove the work piece following manipulation and being controlled by pressure applied to the inner beam;

an intermediate cylindrical component adapted to house the interior cylindrical component and having four radially spaced cylindrical control arms extending inwardly, an interior flange and exterior pair of semi-conical molding arms having a coaxial groove adjacent to a perpendicular recess within the molding arms and being adapted to receive the work piece when extended and forming the work piece when retracted;

an exterior housing having a cylindrical configuration with an inner edge, an outer edge and a hollow interior being adapted to house the interior component and the intermediate component, the interior edge having a plurality of bores and a conical recess being adjacent to the exterior edge and terminating with a

ledge, the conical recess being adapted to receive the molding arms of the intermediate cylindrical component;

a second spring adapted to rest upon the interior flange of the intermediate component and the ledge of the exterior housing forcing the molding arm to retract, when pressure is applied to the four control arms of the intermediate component the second spring is compressed and the molding arms are extended, pressure applied to the inner beam of the interior component while the molding arms are extended will cause the outer beam to remove the working piece; and

an interior end plate of a cylindrical configuration being adapted to be coupled to the bores on the inner edge of the exterior housing with a plurality of screws, the end plate having a central aperture to allow the passage of the inner beam of the interior component and four radially spaced apertures to allow the passage of the control arms of the intermediate component, the end plate allows the system to be controlled by exterior sources without affecting the internal parts.

2. A clam shell system comprising:

a work piece;

an interior cylindrical component composed of a beam adapted to apply pressure to the beam to remove the work piece;

an intermediate cylindrical component having four radial spaced cylindrical control arms and an interior flange and an

exterior pair of semi-conical molding adapted to receive a work piece; and

an exterior cylinder housing adapted to house the interior component and the intermediate component and having a plurality of bores and a conical recess adapted to receive the molding arms of the intermediate cylindrical component.

3. The system asset forth in claim 2 and further including a spring adapted to rest upon the interior flange of the intermediate component and the ledge of the exterior housing forcing the molding arm to retract, when pressure is applied to the control arms of the intermediate component the second spring is compressed and the molding arms are extended, pressure applied to the inner beam of the interior component while the molding arms are extended would cause the outer beam to remove the working piece.

4. The system asset forth in claim 2 and further including an interior end plate of a cylindrical configuration being adapted to be coupled to the bores on the inner edge of the exterior housing with a plurality of screws, the end plate having a central aperture to allow the passage of the inner beam of the interior component and four radial spaced apertures to allow the passage of the control arms of the intermediate component, the end plate allows the system to be controlled by exterior sources without affecting the internal parts.